UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/763,581	01/23/2004	C. K. Haun	04860.P2433C	7725

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EXAMINER
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ART UNIT	PAPER NUMBER
2145	

DATE MAILED: 08/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	10/763,581	HAUN ET AL.
	Examiner	**Art Unit**	
	Melvin H. Pollack	2145	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>23 January 2004</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>23 January 2004</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>1/23/04, 4/3/06</u>.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☒ Other: <u>*see attached office action*</u>.

DETAILED ACTION

Double Patenting

1.   A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer <u>cannot</u> overcome a double patenting rejection based upon 35 U.S.C. 101.

2.   Claim 5 is rejected under 35 U.S.C. 101 as claiming the same invention as that of claim 1 of prior U.S. Patent No. 6,751,658. This is a double patenting rejection.

3.   Claim 13 is rejected under 35 U.S.C. 101 as claiming the same invention as that of claim 8 of prior U.S. Patent No. 6,751,658. This is a double patenting rejection.

4.   The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5.   Claims 1-18 rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-11 of U.S. Patent No. 6,751,658. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the parent application and issuing patent anticipate every claim of the instant application. That is, every element of every claim in the instant application is included in at least one claim of the issued parent.

6.   As an example, note that claim 1 of the parent patent comprises at least every element of claim 1 of the child application, including the particular wording.

Claim Rejections - 35 USC § 102

7.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8.   Claims 1-18 are rejected under 35 U.S.C. 102(e) as being anticipated by Matsunami et al. (7,082,462).

9.   For claim 1, Matsunami teaches a method (abstract; col. 1, line 1 – col. 2, line 40) comprising:

        a.   A network computer (NC) client (Fig. 1, #2a in view of Fig. 2 and col. 1, lines 35-50 and col. 3, lines 35-45) booting from a boot image (col. 8, lines 15-40) provided by an

NC server (Fig. 1, #1 in view of Fig. 3), the boot image including information identifying

the location of one or more user system volumes (Fig. 3, #170-176) on the NC server

(col. 4, line 50 – col. 5, line 55), the one or more user system volumes containing

operating system software (Fig. 6 in view of col. 9, lines 5-45); and

b.   In response to an attempt to modify the contents of the one or more user system

volumes, the NC client causing information identifying a modification associated with

the attempt to be recorded on the NC server (col. 10, lines 15-35) separate from the one

or more user system volumes (Fig. 7, #18 vs. #170) in a shadow system volume

associated with the NC client (col. 9, lines 5-40).

10.   For claim 2, Matsunami teaches the method further comprising:

a.   Transmitting information identifying a user of the NC client to the NC server (col.

5, lines 10-30);

b.   Receiving information identifying the user's desktop environment preferences

from the NC server (col. 15, line 15 – col. 16, line 10); and

c.   Customizing a desktop environment of the NC client in accordance with the

user's desktop environment preferences (col. 16, lines 10-20).

11.   For claim 3, Matsunami teaches that the one or more system volumes are presented to the

NC client as a split operating system (col. 4, lines 25-30) including a core operating system

volume that can be read but not written by the NC client (Fig. 6, #1730 and #1712) and the user

operating system volume that can be read and/or written by the NC client (Fig. 6, #1710-1712

and 1742), wherein the storage area associated with the NC client comprises the shadow volume

corresponding to the user operating system volume (col. 9, lines 5-45), and wherein the NC

client causing information identifying a modification associated with the attempt to be recorded comprises tracking modifications to the user operating system volume in the shadow volume (col. 10, lines 15-40).

12.   For claim 4, Matsunami teaches that, prior to booting from a boot image provided by an NC server (Fig. 2, #2211), (1) the NC client initiating a boot process by booting into a local memory of the NC client (col. 3, line 55 – col. 4, line 20), (2) the NC client transmitting a boot request to the NC server, and (3) the NC client receiving the boot image from the NC server (col. 8, lines 15-40).

13.   For claim 5, Matsunami teaches booting from a boot image provided by an NC server further includes the NC client locally executing the boot image and mounting the one or more system volumes (col. 1, lines 45-51 in view of col. 13, line 35 – col. 16, line 20).

14.   For claim 6, Matsunami teaches a network computer (NC) client (Fig. 1, #2a in view of Fig. 2 and col. 1, lines 35-50 and col. 3, lines 35-45) comprising:

    a.   A bootstrapping means (abstract; col. 1, line 1 – col. 2, line 40) for booting from a boot image (col. 8, lines 15-40) provided by an NC server (Fig. 1, #1 in view of Fig. 3), the boot image including information identifying the location of one or more user system volumes (Fig. 3, #170-176) on the NC server (col. 4, line 50 – col. 5, line 55), the one or more user system volumes containing operating system software (Fig. 6 in view of col. 9, lines 5-45); and

    b.   A redirecting means, responsive to an attempt to modify the contents of the one or more user system volumes, for causing information identifying a modification associated with the attempt to be recorded on the NC server (col. 10, lines 15-35) separate from the

one or more system volumes (Fig. 7, #18 vs. #170) in a shadow system volume

associated with the NC client (col. 9, lines 5-40).

15.   For claim 7, Matsunami teaches a banding means for incorporating the modification

within one or more bands comprising a predetermined number of blocks (col. 4, lines 25-40).

16.   For claim 8, Matsunami teaches a method (abstract; col. 1, line 1 – col. 2, line 40)

comprising:

   a.   A network computer (NC) client (Fig. 1, #2a in view of Fig. 2 and col. 1, lines 35-

   50 and col. 3, lines 35-45) booting from a boot image (col. 8, lines 15-40) provided by an

   NC server (Fig. 1, #1 in view of Fig. 3), the boot image including information identifying

   the location of one or more user system volumes (Fig. 3, #170-176) on the NC server

   (col. 4, line 50 – col. 5, line 55), the one or more user system volumes containing

   operating system software (Fig. 6 in view of col. 9, lines 5-45);

   b.   The NC client mounting the one or more user system volumes (col. 1, lines 45-51

   in view of col. 13, line 35 – col. 16, line 20); and

   c.   In response to a write request from a file system of the NC client that contains a

   modification to the one or more user system volumes, a block device driver of the NC

   client redirecting the write request and causing information identifying the modification

   to be recorded on the NC server (col. 10, lines 15-35) in a shadow system volume

   associated with the NC client (col. 9, lines 5-40) that is separate from the one or more

   user system volumes (Fig. 7, #18 vs. #170).

17.   For claim 9, Matsunami teaches a method (abstract) comprising:

a.   A network computer (NC) client (Fig. 1, #2a in view of Fig. 2 and col. 1, lines 35-50 and col. 3, lines 35-45) booting from a boot image (col. 8, lines 15-40) provided by an NC server (Fig. 1, #1 in view of Fig. 3), the boot image including information identifying the location of one or more user system volumes (Fig. 3, #170-176) on the NC server (col. 4, line 50 – col. 5, line 55), the one or more user system volumes containing operating system software (Fig. 6 in view of col. 9, lines 5-45) that has one or more customizable attributes (col. 8, lines 30-35);

b.   In response to a change to an attribute of the one or more customizable attributes (Fig. 19), the NC client causing information identifying the change to be recorded on the NC server (col. 10, lines 15-35) in a shadow system volume associated with the NC client (col. 9, lines 5-40) that is separate and distinct from the one or more user system volumes (Fig. 7, #18 vs. #170).

18.   For claim 10, Matsunami teaches a method (abstract; col. 1, line 1 – col. 2, line 40) comprising:

c.   A network computer (NC) server (Fig. 1, #1 in view of Fig. 3) providing a boot image (col. 8, lines 15-40) to an NC client (Fig. 1, #2a in view of Fig. 2 and col. 1, lines 35-50 and col. 3, lines 35-45), the boot image including information identifying the location on the NC server of one or more user system volumes (Fig. 3, #170-176 in view of col. 4, line 50 – col. 5, line 55) containing operating system software (Fig. 6 in view of col. 9, lines 5-45); and

d.   In response to a write request from the NC client that contains a modification to the operating system software, the NC server recording information identifying the

modification on the NC server (col. 10, lines 15-35) in a shadow system volume

associated with the NC client (col. 9, lines 5-40) that is separate from the one or more

user system volumes (Fig. 7, #18 vs. #170).

19.   For claim 11, Matsunami teaches further comprising the NC server maintaining the one

or more user system volumes as a split operating system (col. 4, lines 25-30) including a single

core operating system volume that can be read but not written by the NC client (Fig. 6, #1730

and #1712) and a user operating system volume that can be both read and written by the NC

client (Fig. 6, #1710-1712 and 1742).

20.   For claim 12, Matsunami teaches that the shadow system volume contains a non-

persistent shadow volume (Fig. 7, #18) corresponding to the user operating system volume to

which modifications to the user operating system volume are recorded (col. 10, lines 15-35).

21.   For claim 13, Matsunami teaches storing information from the shadow system volume to

a persistent, user-specific storage area for use in a subsequent user session (Fig. 7, #171).

22.   For claim 14, Matsunami teaches receiving information identifying the user at the NC

server (col. 5, lines 10-30 in view of col. 15, line 15 – col. 16, line 20), and providing the client

with information indicative of the user's desktop environment by accessing the persistent, user-

specific storage area (col. 9, lines 5-45).

23.   For claim 15, Matsunami teaches a network computer (NC) server (Fig. 1, #1 in view of

Fig. 3) comprising:

        a.   A boot server means (abstract; col. 1, line 1 – col. 2, line 40) for providing a boot

        image (col. 8, lines 15-40) to an NC client (Fig. 1, #2a in view of Fig. 2 and col. 1, lines

        35-50 and col. 3, lines 35-45), the boot image including information identifying the

location on the NC server (col. 4, line 50 – col. 5, line 55) of one or more user system

volumes (Fig. 3, #170-176) containing operating system software (Fig. 6 in view of col.

9, lines 5-45); and

b.   A storage management means (Fig. 7) for recording information identifying a

modification to the operating system software in a shadow system volume associated

with the NC client (col. 9, lines 5-40; col. 10, lines 15-35) that is separate from the one or

more user system volumes (Fig. 7, #18 vs. #170), the storage management means

operative in response to a write request from the NC client that contains the modification

(col. 10, lines 15-35).

24.   For claim 16, Matsunami teaches a machine-readable medium having stored thereon data

representing sequences of instructions (Fig. 3, #13), the sequences of instructions which, when

executed by a processor (Fig. 3, #11), cause the processor to perform the steps (abstract; col. 1,

line 1 – col. 2, line 40) of:

a.   Providing a boot image (col. 8, lines 15-40) to a network computer (NC) client

(Fig. 1, #2a in view of Fig. 2 and col. 1, lines 35-50 and col. 3, lines 35-45), the boot

image including information identifying a location on an NC server (col. 4, line 50 – col.

5, line 55) of one or more user system volumes (Fig. 3, #170-176) containing operating

system software (Fig. 6 in view of col. 9, lines 5-45); and

b.   In response to a write request from the NC client that contains a modification to

the operating system software, recording information identifying the modification (col.

10, lines 15-35) in a shadow system volume associated with the NC client (col. 9, lines 5-

40) that is separate from the one or more user system volumes (Fig. 7, #18 vs. #170).

25.   For claim 17, Matsunami teaches that in a network computer (NC) system (Fig. 1; col. 1,

lines 35-50), a method (abstract; col. 1, line 1 – col. 2, line 40) comprising:

    a.   An NC server (Fig. 1, #1 in view of Fig. 3) providing a boot image (col. 8, lines

15-40) to an NC client (Fig. 1, #2a in view of Fig. 2 and col. 3, lines 35-45), the boot

image including information identifying the location on the NC server (col. 4, line 50 –

col. 5, line 55) of one or more user system volumes (Fig. 3, #170-176) containing

operating system software (Fig. 6 in view of col. 9, lines 5-45);

    b.   The NC client booting from the boot image provided by the NC server (col. 8,

lines 15-40);

    c.   The NC client mounting the one or more user system volumes (col. 1, lines 45-51

in view of col. 13, line 35 – col. 16, line 20);

    d.   In response to a write request from a file system of the NC client that contains a

modification to the one or more user system volumes, a block device driver of the NC

client redirecting the write request (col. 10, lines 15-35) to a shadow system volume on

the NC server that is associated with the NC client (col. 9, lines 5-40) and which is

separate from the one or more user system volumes (Fig. 7, #18 vs. #170);

    e.   The NC server receiving the write request from the NC client (col. 10, lines 15-

35); and

    f.   The NC server causing information identifying the modification to be recorded in

the shadow system volume associated with the NC client (col. 10, lines 15-35).

26.   For claim 18, Matsunami teaches a network computer (NC) system (Fig. 1; col. 1, lines

35-50) comprising (abstract; col. 1, line 1 – col. 2, line 40):

a.   An NC server (Fig. 1, #1 in view of Fig. 3) configured to provide a boot image

(col. 8, lines 15-40) to one or more NC clients associated with the NC system (Fig. 1,

#2a-f in view of Fig. 2 and col. 3, lines 35-45), the boot image including information

identifying the location on the NC server (col. 4, line 50 – col. 5, line 55) of one or more

user system volumes (Fig. 3, #170-176) containing operating system software (Fig. 6 in

view of col. 9, lines 5-45); and

b.   An NC client coupled in communication with the NC server (Fig. 1, #3a-b), the

NC client configured to receive and boot from the boot image (col. 8, lines 15-40), the

NC client including a file system process and a block device driver (Fig. 2), the block

device driver configured to redirect write requests directed to the one or more user system

volumes (col. 10, lines 15-35) to a shadow system volume on the NC server that is

associated with the NC client (col. 9, lines 5-40) and which is separate from the one or

more user system volumes (Fig. 7, #18 vs. #170).

Conclusion

27.   The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure. They regard further teachings on NC computers and storage issues.
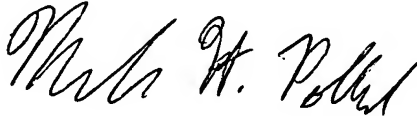
Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Melvin H. Pollack whose telephone number is (571) 272-3887.

The examiner can normally be reached on 8:00-4:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Jason Cardone can be reached on (571) 272-3933. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

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MHP
04 August 2006

Melvin H. Pollack
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